

anvil section, wherein the shape-memory alloy expands on heating to provide a metal-to-metal seal. Alternatively, the seal can also be a hard elastomeric part or a metal part.--

In the Claim:-

Cancel claims 9 and 10.

Amend claim 1 as follows:

(Amended) A method of connecting a first pipe to a second pipe having an end part fitting into an end part of the first pipe, comprising

- a) arranging the end part of the second pipe within the end part of the first pipe;
- b) arranging a sleeve of a deformable material between said end parts; and
- c) radially expanding the end part of the second pipe towards the end part of the first pipe so as to bias the sleeve between said end parts

wherein the first pipe is an upper wellbore casing and the second pipe is a lower wellbore casing.

REMARKS

Claims 1-8 remain in the present application. Claims 1 stood as rejected under 35 U.S.C. §102(b) as anticipated by Gabor, (DE 3,407, 467), and claims 2-8 stand as rejected under 35 U.S.C. §103(a) over Gabor et al. in view of Kapgan et al. (US Patent 5,662,362). The drawings stand as objected to based on all of the elements not being shown. Canceled claim 10 was rejected under 35 U.S.C. § 112.

The above amendment adds the sleeve of deformable material, obviating the objection to the drawings. Withdrawal thereof is respectfully requested. Support is found in the specification on page 4, for example, lines 22 through 25.

The rejection of claim 10 under 35 U.S.C. §112, second paragraph, is obviated by the above cancellation of that claim. Withdrawal thereof is respectfully requested.

The above amendment includes limitations of claim 9 into the independent claim. The pipes to be connected by the present invention must be wellbore casings. In the Office Action mailed October 24, 2001, claim 9 is rejected over Gabor et al. in view of Kapgan et al., with judicial notice that wellbore casings are known. Although wellbore casings are known, there is no suggestion present in the references of record to use the connection method of the present invention to hang a lower casing from an upper casing. The use of the present invention to hang

the lower casing from the upper casing solves many needs that have been long felt in the art. The present invention provides a tight seal between the casings without relying on cement to produce a seal. Further, it permits a constant inner diameter for the two strings of casing.

The objections and rejections having been traversed, allowance of the remaining claims is respectfully requested.

Respectfully submitted,
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enclosure: replacement drawing sheet
duplicate petition to extend time to respond
redlined copy of amended claim and specification portion

Redline copy of amended claim 1
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1. 1. A method of connecting a first pipe to a second pipe having an end part fitting into an end part of the first pipe, comprising
 - a) arranging the end part of the second pipe within the end part of the first pipe;
 - b) arranging a sleeve of a deformable material between said end parts; and
 - c) radially expanding the end part of the second pipe towards the end part of the first pipe so as to bias the sleeve between said end partswherein the first pipe is an upper wellbore casing and the second pipe is a lower wellbore casing.

Redline of paragraph amended in the specification.

Page 4, starting on line 22.

In order to improve the sealing of the connection, a sleeve of shape-memory alloy [(not shown)] is provided on the outer surface of the first end of the second pipe and on the inner surface of anvil section, wherein the shape-memory alloy expands on heating to provide a metal-to-metal seal. Alternatively, the seal can also be a hard elastomeric part or a metal part.